

William Pendleton

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EDUCATION

Brigham Young University – Dec 2024

B.S. – Double Major: Computer Science & Computer Engineering – GPA: 3.6

TECHNICAL SKILLS

Proficient in: Python, JavaScript, Node.js

Worked with: React, HTML, CSS, Java, C, MySQL, Swift, TensorFlow, AWS,

Interests: DevOps, Full Stack Development

EXPERIENCE

Brigham Young University – *Computing Specialist*

Fall 2021 – Present | Provo, UT

- Engineered IT infrastructure using Apple and Microsoft MDM solutions to enhance data management.
- Collaborated and led initiatives to drive technology adoption and increase satisfaction for 200.
- Automated software deployment and repetitive task management by customizing Bash and AppleScript scripts to boost operational efficiency.

RedList – *Software Quality Analysis Intern*

Summer 2022 | Pleasant Grove, UT

- Directed mobile and web app QA using Selenium and Appium, successfully identifying an average of 8 critical bugs weekly, thereby maintaining high standards in software functionality and user experience.
- Devised 10 automated test cases weekly in JavaScript/TypeScript, resulting in a significant boost in testing efficiency and speed.
- Integrated with development teams on seamless project integration and delivery.

PROJECTS

Minecraft Wallpaper Provider (*Java, Python, Flask, TensorFlow, MongoDB, Apple Shortcuts*)

- Developed a Minecraft Mod that generates real-time screenshots based on in-game locations, integrated with a Flask-based API to store and manage image metadata.
- Built an asynchronous classification pipeline using MobileNet-V2 and TensorFlow to label images as aesthetically good, okay, or bad, optimizing cloud storage usage.
- Created an Apple Shortcut to query the API for images based on real-world weather and location, enabling dynamic wallpaper updates.

AI-SQL Integration (*MySQL, Python, OpenAI API*)

- Integrated OpenAI's GPT-3 API with a MySQL database to allow natural language queries of receipt and transaction data, transforming user queries into SQL statements for seamless retrieval of financial insights.
- Developed a Python-based interface to translate complex SQL queries into intuitive, human-friendly responses, simplifying data analysis for end users.

Full DevOps CI/CD Pipeline with AWS and GitHub (*GitHub Actions, Jest, AWS*)

- Implemented a fully automated CI/CD pipeline for a web application using GitHub Actions for static site deployment.
- Orchestrated testing strategies across unit, integration, and UI levels using Jest and Playwright, ensuring comprehensive test coverage with GitHub Actions CI integration.

Apache Image Delivery to ESP32 (*Apache, Ubuntu, C, Arduino*)

- Configured an Apache server on Ubuntu to securely deliver high-resolution images (800x480) to an ESP32-driven e-ink display over Wi-Fi, optimizing for ultra-low power consumption.